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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,355	10/30/2001	Gregory V. Hofer	10016239-1	4968

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EXAMINER

VIEAUX, GARY

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/002,355	HOFER ET AL.
	Examiner	Art Unit
	Gary C. Vieaux	2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 December 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 13, 14, 17, 21, 23, 24 and 28 is/are allowed.
- 6) Claim(s) 1-7, 10, 11, 15, 16, 25 and 26 is/are rejected.
- 7) Claim(s) 8, 9, 12, 19, 20 and 27 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Amendment

The Amendment filed on December 28, 2004 has been received and made of record. In response to the first office action, claims 18 and 22 have been cancelled, claims 1-13, 15-17, 19-21, and 22-26 have been amended, and claims 27 and 28 have been added. The Specification was also amended to correctly associate application numbers of related applications filed on the same day.

10

Claim Objections

Claim 19 and 20 are objected to because of the following informalities:
Dependency is based upon an apparatus claim, and not a method claim as stated.
Appropriate correction is required.

Claim 20 is also objected to because of the following informalities: Dependency
15 is based upon cancelled claim 18. Appropriate correction is required.

For the purposes of evaluation of claim 20 on its merits, claim 20 will be interpreted to be dependent on claim 17; this interpretation is based on the similarity in claim language between claims 20 and 19, with claim 19 deriving dependency from claim 17.

20

Response to Arguments

Applicant's arguments filed December 28, 2004 with respect to claims 1, 2, 4-7 and 11, have been fully considered but they are not persuasive.

Regarding claim 1, Applicant contends the 35 U.S.C. §103(a) combination of

5 Iwasaki in view of Inulya fails to disclose the claimed invention, particularly the measuring element of "measuring light from the scene at a periodic rate, wherein the periodic rate is different from any of the predicted frequencies, using an exposure length that is different than any of the periods of the predicted frequencies" (Remarks p. 10-11.) The Examiner respectfully disagrees.

10 Iwasaki discloses a photometry (measurement of light intensity) method in which samples, using an exposure length that is different than the expected 100Hz flicker cycle of the illuminating light source (fig. 13(A)), are taken at one-half the expected 100Hz flicker cycle; a rate that is different than the expected 100Hz flicker cycle (see sample 2 of fig. 13(A).) Based on the claims as currently written, this is read

15 equivalently as measuring light from the scene at a periodic rate, wherein the periodic rate is different from any of the predicted frequencies, using an exposure length that is different than any of the periods of the predicted frequencies, and therefore, the Examiner respectfully stands behind the 35 U.S.C. §103(a) rejection of claim 1.

Regarding claims 2, 4-7, and 10-11, each depends either directly from or

20 indirectly from independent claim 1 and, thus, inherits all the limitations of independent claim 1. Consequently, based on their dependence and the foregoing response to

arguments relating to claim 1, the Examiner respectfully stands behind the 35 U.S.C. § 103(a) rejections to claims 2, 4-7, and 10-11.

Applicant's arguments, see Remarks p.12-13, filed December 28, 2004, with

5 respect to claims 17,19-21, and 23-24, when the claims are examined as written, have been fully considered and are persuasive. The 35 U.S.C. § 103(a) rejection of claim 17 has been withdrawn.

Claim Rejections - 35 USC § 103

10 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US #5,701,526) in view of Inuiya et al. (US #5,905,529.)

20 Regarding claim 1, in the Background of the Invention, Iwasaki teaches a method of detecting artificial illumination in a scene comprising predicting at least one frequency for a variation in the illumination in the scene (fig. 13A; col. 1 lines 44-46, wherein prediction of the frequency of illumination would be required in order to conduct photometry), measuring light from the scene at a periodic rate, where the periodic rate

25 is different than any of the predicted frequencies, using an exposure length that is different than any of the periods of the predicted frequencies (fig. 13A; col. 1 lines 56-

61), as well as discloses the need for calculation of the influence of flicker cycle (col. lines 56-58.) However, Iwasaki does not teach detecting the presence of an artificial illuminant when the measured light from the scene contains periodic changes.

Nevertheless, Inuiya teaches detecting the presence of an artificial illuminant

5 when the measured light from the scene contains periodic changes (col. 12 lines 27-37.) It would have been obvious to one of ordinary skill in the art at the time of the invention to include the detection of an artificial illuminant as taught by Inuiya, with the method as taught by Iwasaki. One of ordinary skill in the art at the time the invention was made would be motivated to make this combination in order to correct effects of flicker, when

10 determined to be present.

Regarding claim 2, Iwasaki and Inuiya teach all the limitations of claim 2 (see the 103(a) rejection to claim 1 supra) including wherein the periodic changes are variations in brightness ('526 col. 1 lines 10-16 and 29-35; '529 col. 12 lines 27-29.)

Regarding claim 4, Iwasaki and Inuiya teach all the limitations of claim 4 (see the 15 103(a) rejection to claim 1 supra) including wherein the periodic rate is close to, but not equal to, twice a common AC frequency ('526 fig. 13A; col. 1 lines 44-47.)

Regarding claim 5, Iwasaki and Inuiya teach all the limitations of claim 5 (see the 103(a) rejection to claim 1 supra) including wherein the common AC frequency is 60 Hz ('529 col. 30 lines 49-50.) Although the references directly address 50 Hz power

20 sources, it would have been obvious to one of ordinary skill in the art at the time of the invention to have considered the common AC frequency to be 60 Hz as taught by Inuiya, with the method as taught by Iwasaki. One of ordinary skill in the art at the time

the invention was made would be motivated to adapt the method to include 60 Hz as a common AC frequency in order for flicker detection to be applicable in areas/locations which use 60 Hz power sources instead of 50 Hz power sources. (The examiner also notes that Iwasaki also addresses 60 Hz as a common AC frequency, '526 col. 11 lines 5 55-57.)

Regarding claim 6, Iwasaki and Inuiya teach all the limitations of claim 6 (see the 103(a) rejection to claim 1 supra) including wherein the common AC frequency is 50 Hz ('526 col.1 lines 32-34.)

Regarding claim 7, Iwasaki and Inuiya teach all the limitations of claim 7 (see the 10 103(a) rejection to claim 1 supra) including where the exposure length is smaller than one half of any of the periods of the predicted frequencies ('526 fig. 13A.)

Regarding claim 11, Iwasaki and Inuiya teach all the limitations of claim 11 (see the 103(a) rejection to claim 1 supra) including wherein the exposure length is larger than one half of any of the periods of the predicted frequencies ('526 col. 1 line 66 - col. 15 2 line 3.)

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US #5,701,526) and Inuiya et al. (5,905,529), in view of Smith et al. (US #6,501,518.)

Regarding claim 10, Iwasaki and Inuiya teach all the limitations of claim 1 (see the 20 103(a) rejection to claim 1 supra), except where the method further comprises determining the phase and frequency of the periodic changes with FFT analysis of the sampled light. Regardless, Smith teaches use a Fast Fourier Transform (FFT) analysis

to determine both phase and frequency of the periodic changes (in relation to phase - col. 4 lines 23-31; in relation to frequency - col. 4 lines 64-67.) Given the teachings of Smith in relation to the method as taught by Iwasaki and Inuiya, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a FFT to

5 determine the frequency of oscillation of the periodic changes in the measured light, as well as the phase (zeros) in relation to the illumination flicker, order to allow for the correction of flicker, when detected.

10

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

15 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7, 15-16, and 25-26 are rejected under the judicially created doctrine of double patenting over claims 1-7, 10-11, and 18-19, respectively, of U. S. Patent No. 6,865,293 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: with the exception of color correction, the relevant claims of the instant application are an analogous recitations of those found in U. S.

5 Patent No. 6,865,293.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

10

Allowable Subject Matter

Claims 17, 21, 23-24 and 28 are allowed.

Regarding claims 17, 21, 23-24 and 28, the prior art is not found to teach or at least fairly suggest measuring light with a pre-selected frequency that is approximately 15 twice a frequency of a power source supplying an artificial illuminate, but not equal to twice the frequency of the power source.

Claims 8, 9, 12, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20 Regarding claim 8, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, a confirmation of the

actual frequency of the artificial illuminant by comparing the re-measured light for a reduction in the variability of the light intensity.

Regarding claim 9, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, neither re-measuring 5 the light from the scene using a periodic rate that is not an integer multiple of the chosen frequency nor determining the phase of the periodic changes by detecting the positions of the intensity variations.

Regarding claim 12, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, confirming the actual 10 frequency of the artificial illuminant by comparing the re-measured light for a reduction in the variability of the light intensity.

Regarding claim 27, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, determining the presence of an artificial illuminant if the intensity of the measured light from the scene 15 varies by more than a predetermined value.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-
10 7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the
15 Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic
20 Business Center (EBC) at 866-217-9197 (toll-free).



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